WHAT IS CLAIMED IS:

1. A condition management system for use with a processor employing a hierarchical register consolidation structure, comprising:

a condition management structure configured to abstract groups of status indicators associated with said hierarchical register consolidation structure into a tree of hierarchical container objects and element objects, each of said container objects associated with at least one of said element objects and linked to a single parent object, each of said element objects configured to represent at least one of said status indicators and linked to a single child object;

an abstraction retrieval subsystem configured to employ said condition management structure to traverse said hierarchical register consolidation structure to determine a condition of at least one of said status indicators; and

an abstraction management subsystem configured to employ said condition management structure to control a propagation of selected ones of said status indicators through said hierarchical register consolidation structure.

2. The condition management system as recited in Claim 1 wherein each of said container objects includes said at least one of said element objects.

3. The condition management system as recited in Claim 1 wherein said condition management structure is dynamically allocated.

4. The condition management system as recited in Claim 1 wherein said condition management structure is pre-allocated within the hardware associated with said processor.

5. The condition management system as recited in Claim 1 wherein said status indicators are bits of registers within said hierarchical register consolidation structure.

6. The condition management system as recited in Claim 1 wherein said hierarchical register consolidation structure is a hierarchical interrupt register structure of said processor.

7. The condition management system as recited in Claim 6 wherein each of said status indicators represents an interrupt bit in an interrupt register of said hierarchical interrupt register structure.

8. The condition management system as recited in Claim 7 wherein said abstraction management subsystem is further configured to set/clear or enable/disable interrupts for said interrupt bit.

9. The condition management system as recited in Claim 1 wherein said parent object is a consolidation element object associated with a hierarchically higher container object and said child object is a hierarchically lower container object.

10. The condition management system as recited in Claim 9 wherein said consolidation element object represents the consolidation of all of said element objects associated with said child object.

11. The condition management system as recited in Claim 1 wherein said abstraction management subsystem is further configured to set/clear said status indicators or maintain associated parameters for one or more of said status indicators.

12. The condition management system as recited in Claim 1 wherein said abstraction management subsystem is further configured to create or destroy said condition management structure.

13. The condition management system as recited in Claim 1 wherein said container objects include addresses to registers of said hierarchical register consolidation structure, said abstraction retrieval subsystem and said abstraction management subsystem further configured to employ said addresses in accessing said hierarchical register consolidation structure.

14. The condition management system as recited in Claim 1 wherein said abstraction retrieval subsystem is further configured to employ a mask to determine said condition of said at least one of said status indicators represented by ones of said element objects associated with a leaf container object.

15. A method of operating a condition management system for use with a processor employing a hierarchical register consolidation structure, comprising:

employing a condition management structure to abstract groups of status indicators associated with said hierarchical register consolidation structure into a tree of hierarchical container objects and element objects, each of said container objects associated with at least one of said element objects and linked to a single parent object, each of said element objects configured to represent at least one of said status indicators and linked to a single child object;

employing said condition management structure to traverse said hierarchical register consolidation structure to determine a condition of at least one of said status indicators; and

employing said condition management structure to control a propagation of selected ones of said status indicators through said hierarchical register consolidation structure.

16. The method as recited in Claim 15 wherein each of said container objects includes said at least one of said element objects.

17. The method as recited in Claim 15 further comprising dynamically allocating said condition management structure.

18. The method as recited in Claim 15 further comprising pre-allocating said condition management structure within the hardware associated with said processor.

19. The method as recited in Claim 15 wherein said status indicators are bits of registers within said hierarchical register consolidation structure.

20. The method as recited in Claim 11 wherein said hierarchical register consolidation structure is a hierarchical interrupt register structure of said processor.

21. The method as recited in Claim 20 wherein each of said status indicators represents an interrupt bit in an interrupt register of said hierarchical interrupt register structure.

22. The method as recited in Claim 21 further comprising setting/clearing or enabling/disabling interrupts for said interrupt bit.

23. The method as recited in Claim 15 wherein said parent object is a consolidation element object associated with a hierarchically higher container object and said child object is a

hierarchically lower container object.

24. The method as recited in Claim 23 wherein said consolidation element object represents the consolidation of all of said element objects associated with said child object.

25. The method as recited in Claim 15 further comprising setting/clearing said status indicators or maintaining parameters for one or more of said status indicators.

26. The method as recited in Claim 15 further comprising creating or destroying said condition management structure.

27. The method as recited in Claim 15 wherein said container objects include addresses to registers of said hierarchical register consolidation structure, said method further comprising employing said addresses in accessing said hierarchical register consolidation structure.

28. The method as recited in Claim 15 wherein said employing said condition management structure to traverse includes employing a mask to determine said condition of said at least one of said status indicators represented by ones of said element objects associated with a leaf container object.

29. A memory for storing data for access by an application program being executed in a processor, comprising:

a condition management data structure stored in said memory, said condition management data structure including information to abstract groups of status indicators associated with a hierarchical register consolidation structure of said processor into a tree and accessed by said application program, said condition management data structure including:

hierarchical container objects and element objects stored in said memory, each of said container objects being associated with at least one of said element objects and having a parent link to a single parent object;

each of said element objects representing at least one of said status indicators and having a child link to a single child object; and

said parent object being a consolidation element object associated with a hierarchically higher container object and said child object being a hierarchically lower container object, thereby establishing a hierarchy of said container objects.

30. The memory as recited in Claim 29 wherein one of said container objects being associated with said at least one of said element objects and a virtual element object if two groups of said status indicators consolidate to a single consolidation status indicator of said hierarchical register consolidation structure, said virtual element object being said parent object to one of said container objects associated with said element objects representing said status indicators of one of said two groups.

31. The memory as recited in Claim 29 wherein a single one of said element objects being said parent object to one of said container objects associated with said element objects representing a group of said status indicators if said group of said status indicators consolidate to a plurality of consolidation status indicators of said hierarchical register consolidation structure, remaining ones of said plurality of said consolidation status indicators not being represented in said condition management data structure.

32. The memory as recited in Claim 29 wherein a first portion of one group of said status indicators being represented by a first set of said element objects associated with one of said container objects and a second portion of said one group of said status indicators being represented by a second set of said element objects associated with a virtual container object if said first and second portions of said one group of said status indicators consolidate to different consolidation status indicators of said hierarchical register consolidation structure, said virtual container object having a virtual parent link to a different parent object than said parent link of said one of said container objects.

33. The memory as recited in Claim 29 wherein each of said container objects includes said at least one of said element objects.

34. The memory as recited in Claim 29 wherein only one of said container objects is a root container object, said root container object being associated with a hierarchically highest group of said status indicators of said hierarchical register consolidation structure and being a starting point for accessing said condition management data structure, said root container object further having said parent link to said parent object being unestablished.

35. The memory as recited in Claim 34 wherein ones of said container objects are leaf container objects, each of said leaf container objects being associated with a hierarchically lowest group of said status indicators, each of said elements objects associated with said leaf container objects having said child link to said child object being unestablished.

36. The memory as recited in Claim 29 wherein each of said element objects include a container link to its associated one of said container objects.

37. The memory as recited in Claim 29 wherein each of said element objects include a unique name and a position of said at least one of said status indicators within a register of said hierarchical register consolidation structure that is associated

with said at least one of said status indicators.

38. The memory as recited in Claim 29 wherein each of said container objects include an address of a register of said hierarchical register consolidation structure selected from the group consisting of:

a status register address;

a mask register address;

a persistency register address; and

an alarm register address.

39. The memory as recited in Claim 29 wherein said status indicators are bits of registers within said hierarchical register consolidation structure.

40. The memory as recited in Claim 29 wherein said hierarchical register consolidation structure is a hierarchical interrupt register structure of said processor.

41. The memory as recited in Claim 40 wherein each of said status indicators represents an interrupt bit in an interrupt register of said hierarchical interrupt register structure.

42. The memory as recited in Claim 29 wherein said consolidation element object represents the consolidation of all of said element objects associated with said child object.